

# INTERNATIONAL SEARCH REPORT

International Application No

'IB2004/004463

## A. CLASSIFICATION OF SUBJECT MATTER

C12P13/08 C12N9/12 C12N15/54 C12N1/21  
// (C12N9/12, C12R1:15)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

C12P C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, BIOSIS, WPI Data, EMBASE, FSTA, EMBL

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication where appropriate of the relevant passages	Relevant to claim No
X	WO 01/07626 A (O'DONOHUE, MICHAEL, R ; HANKE, PAUL, D ; ARCHER-DANIELS-MIDLAND COMPANY) 1 February 2001 (2001-02-01)  the whole document	1-3, 9-23, 28-41, 44,45, 48,49, 53,54
X	MARX ET AL: "Response of central metabolism in Corynebacterium glutamicum to the use of an NADH-dependent glutamate dehydrogenase" METABOLIC ENGINEERING, ACADEMIC PRESS,, US, vol. 1, 1999, pages 35-48, XP002154493 ISSN: 1096-7176 the whole document	1-3, 9-14,16, 17,23, 29,30, 32,33, 38-41, 48,49, 53,54
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☒ Further documents are listed in the continuation of box C

☒ Patent family members are listed in annex

### \* Special categories of cited documents

<sup>1</sup>A\* document defining the general state of the art which is not considered to be of particular relevance

<sup>1</sup>E\* earlier document but published on or after the international filing date

<sup>1</sup>L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

<sup>1</sup>O\* document referring to an oral disclosure, use, exhibition or other means

<sup>1</sup>P\* document published prior to the international filing date but later than the priority date claimed

<sup>1</sup>T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

<sup>1</sup>X\* document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

<sup>1</sup>Y\* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

<sup>1</sup>&\* document member of the same patent family

Date of the actual completion of the international search

20 January 2006

Date of mailing of the international search report

27/01/2006

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	<p>PARK S M ET AL: "METABOLIC AND PHYSIOLOGICAL STUDIES OF CORYNEBACTERIUM GLUTAMICUM MUTANTS" BIOTECHNOLOGY AND BIOENGINEERING, INTERSCIENCE PUBLISHERS, LONDON, GB, vol. 55, no. 6, 1997, pages 864-879, XP000999162 ISSN: 0006-3592 the whole document</p>	<p>1-3, 9-14, 16, 23, 29, 30, 32, 38-41, 48, 49, 53, 54</p>
X	<p>wo 01/00844 A (BASF AG) 4 January 2001 (2001-01-04)</p> <p>abstract ; claim 36 SEQ ID NO: 185, 186 page 61 page 7, line 13 - line 29</p>	<p>22-28, 38-41, 46-54</p>
X	<p>wo 02/081631 A (DODGE TIMOTHY C ; GENENCOR INT (US) ; VALLE FERNANDO (US) ) 17 October 2002 (2002-10-17) figures 27, 28; example 7</p>	<p>22-29, 44, 45, 48-52</p>
A	<p>DOMINGUEZ H ET AL: "CARBON-FLUX DISTRIBUTION IN THE CENTRAL METABOLIC PATHWAYS OF CORYNEBACTERIUM GLUTAMICUM DURING GROWTH ON FRUCTOSE" EUROPEAN JOURNAL OF BIOCHEMISTRY, BERLIN, DE, vol. 254, no. 1, 15 May 1998 (1998-05-15), pages 96-102, XP000960354 ISSN: 0014-2956 the whole document</p>	<p>1-54</p>
A	<p>KIEFER P ET AL: "Influence of glucose, fructose and sucrose as carbon sources on kinetics and stoichiometry of lysine production by Corynebacterium glutamicum." JOURNAL OF INDUSTRIAL MICROBIOLOGY &amp; BIOTECHNOLOGY, JUN 2002, vol. 28, no. 6, June 2002 (2002-06), pages 338-343, XP002287975 ISSN: 1367-5435 abstract ; figure 5 page 341, column 1, paragraph 1</p>	<p>1-54</p>
A	<p>SAHM H ET AL: "PATHWAY ANALYSIS AND METABOLIC ENGINEERING IN CORYNEBACTERIUM GLUTAMICUM" BIOLOGICAL CHEMISTRY, XX, XX, vol. 381, no. 9/10, September 2000 (2000-09), pages 899-910, XP000979510 ISSN: 1431-6730 abstract ; table 2</p>	<p>1-54</p>

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
A	MARX ACHIM ET AL: "Determination of the fluxes in the central metabolism of Corynebacterium glutamicum by nuclear magnetic resonance spectroscopy combined with metabolite balancing" BIOTECHNOLOGY AND BIOENGINEERING, vol. 49, no. 2, 1996, pages 111-129, XP002287973 ISSN: 0006-3592 abstract; figure 3 page 115, column 1, paragraph 1 - column 2 -----	13
A	WO 03/014330 A (KREUTZER CAROLINE ; DEGUSSA (DE); BATHE BRIGITTE (DE); MOECKEL BETTINA) 20 February 2003 (2003-02-20) abstract; example 1 -----	14-17, 30-33
P,X	KIEFER PATRICK ET AL: "Comparative metabolic flux analysis of lysine-producing Corynebacterium glutamicum cultured on glucose or fructose." APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol. 70, no. 1, January 2004 (2004-01 ), pages 229-239, XP002287976 ISSN: 0099-2240 the whole document -----	1-13, 18, 20, 22-29, 34, 36, 38-41, 44-54

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Information on patent family members

International Application No

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